

*ceolus* L., which we determined from a Barrows illustration to be the taxon now considered *Cyripedium parviflorum* Salisb. Barrow's 1978 samples consisted of 73–90% males.

Catling conjectured that because *T. lineola* had recently been introduced into North America from Europe (1910), it might not have undergone microevolution enabling it to avoid entering and becoming fatally trapped in lady's-slipper flowers. The hypothesis is plausible in light of the many trapped *T. lineola* he and Barrows reported, contrasting with a lack of common "native" skippers trapped in labella. In support of Catling's hypothesis, we suggest that *P. morigera* may also have become established in eastern North America recently, and might also be unfamiliar with the dangers of entering these flowers—a case parallel to that of the European skipper farther north.

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#### AVIAN PREDATION OF ALPINE BUTTERFLIES

Because direct observation of predation on butterflies is exceedingly rare (Bowers et al. 1985, *Evolution* 39:93–103), the following observations of avian predation on a variety of alpine butterflies may be of interest.

While studying the foraging ecology of nesting water pipits (*Anthus spinoletta* (L.)) on the Beartooth Plateau (elev. 3,300 m), Park Co., Wyoming, I observed a nesting female pipit capture and consume the following butterflies from 6–10 August 1983, all between 1721 and 1935 MDT: two *Speyeria mormonia* (Boisduval), one *Parnassius phoebus* Fabricius, and one *Euphydryas editha* (Boisduval). In each case the butterfly was flushed from the ground as the pipit foraged by walking through the tundra vegetation. The wings were torn or flicked off before the body was eaten.

That one bird was seen capturing and eating four butterflies in a relatively short time (10 h of observation) suggests that avian predation could at times cause important mortality in some alpine butterfly populations. The proposed impact of avian predation on alpine butterflies would probably not be as extreme as that documented for other, low elevation, butterflies (Calvert et al. 1979, *Science* 204:847–851; Fink et al. 1983, *Biotropica* 15:151–153; Bowers et al. 1985, *Evolution* 39:93–103). However, it might still be a significant factor in the demographics of narrowly distributed taxa, such as *Boloria acrocnema* Gall & Sperling (Gall 1984, *Biol. Conserv.* 28:111–138), especially if the breeding density of alpine birds is high where the butterflies are concentrated.

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